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METHOD AND SYSTEM FOR ALLOWING VIEWERS

TO PURCHASE PROGRAM PRODUCTS

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BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a method and system for
allowing viewers to purchase products shown on television shows.
More particularly, the invention relates to a method and system

5   for allowing television viewers to purchase products which
appear on entertainment program-type television shows.

Description of the Related Art

Television programs dedicated solely to selling

10   merchandise, or sales programs, have been broadcast on
television and other broadcast media. One example of such sales
programs includes, "infomercials," which are essentially lengthy
paid commercials. Also, narrative television programs, in which
scenes that showcase products available for sale are

15   intermittently frozen while commercial sales of those products
are undertaken, have been broadcast.

In recent years, sales programs have become increasingly
commonplace. This is largely attributable to the wide
availability of cable television, which provides access to many

1

more channels, and therefore programming choices, than would otherwise be available. Indeed, cable channels such as the "Home Shopping Network," are devoted solely to selling merchandise.

5   In addition to broadcasted television, promotional video tapes have also been used to specifically sell merchandise. Automobile manufacturers, for example, distribute video tapes containing product information to potential customers.

Sales programs, however, do not constitute the most
10   prevalent type of programming. Far more widespread are programs whose primary objective is to entertain. Entertainment programs, which include such programs as soap operas, sitcoms, dramas, and sporting events, generate revenue primarily by selling advertising time dispersed throughout broadcasts of the
15   programs. Thus, while entertainment programs are supported by advertising, the artistic contents of entertainment programs are directed solely to entertaining viewers, and not to soliciting sales of merchandise as they are with sales programs.

Because entertainment programs are typically not produced
20   with the intent of selling merchandise, a potentially lucrative source of revenue has gone unrealized. Television viewers may find themselves interested in purchasing products which are the same brand or design as props seen in entertainment programs. However, the demand for these products has not yet been
25   satisfied. Revenue from sales of such products could improve the financial success of an entertainment program.

Manufacturers would pay to have their products used in popular shows. Further, the producers could charge a fee for each product ordered that was identified from their show. This could increase revenues as well as lessen the program's dependency on advertising. As a result, products could experience greater freedom of artistic content, increasing the variety of entertainment programs available to the public.

Present sales mechanisms are not effective for selling products that are related to entertainment programs. For example, while catalogs are presently used to sell souvenir merchandise such as t-shirts and coffee mugs, they do not sell products similar to television props. For example, a program viewer cannot buy the Armani suit that Frasier was wearing on the June 30, 1996 episode. These products gain much appeal from their association with the program actors. The present invention provides viewers with a sense of immediate gratification through making the products readily available.

SUMMARY OF THE INVENTION

Systems consistent with the present invention allow viewers of an entertainment program to purchase products used in the program. Information about products is stored in databases that can be accessed by operators based on viewer supplied information.

To achieve these and other advantages, a product sales

system consistent with the present invention comprises a system for allowing a viewer to purchase products shown in an entertainment program. The system includes means for storing in a database product information relating to a product shown in

5   the entertainment program. Means are provided for receiving from the viewer a request about the product shown in the entertainment program, the request containing a subset of the product information. Also included are means for identifying the product information in the database using the subset of the

10   product information, and means for sending to the viewer the identified information about the product.

In another aspect, the invention includes a system for allowing entertainment program viewers to purchase products shown in an entertainment program. The system includes a remote

15   terminal for entering product data about a product used in the entertainment program. A central controller, coupled to the remote terminal, receives and stores the entered product data from the remote terminal. An operator terminal, coupled to the central controller, accesses from the central controller

20   information about the product used in the entertainment program.

Both the foregoing general description and the following Detailed Description are exemplary and are intended to provide further explanation of the invention as claimed.

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BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings provide a further understanding of the invention and, together with the Detailed Description, explain the principles of the invention. In the drawings:

Fig. 1 is a block diagram of the product sales system consistent with the invention;

Fig. 2 is a block diagram of central controller 110 shown in Fig. 1;

Fig. 3 is a block diagram of remote terminal 150 shown in Fig. 1;

Fig. 4 is a block diagram of operator terminal 140 shown in Fig. 1;

Fig. 5 illustrates sample records from program database 262 stored in data storage device 260 shown in Fig. 2;

Fig. 6 illustrates sample records from product database 263 stored in data storage device 260 shown in Fig. 2;

Fig. 7 illustrates sample records from vendor database 264 stored in data storage device 260 shown in Fig. 2;

Fig. 8 illustrates sample records from order database 265 stored in data storage device 260 shown in Fig. 2;

5   Fig. 9 is a flow diagram representing a method for the operation of, remote terminal 150 shown in Fig. 3;

Fig. 10 is a flow diagram representing a method for processing data in central controller 110 of Fig. 2; and

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Figs. 11a-11b are flow diagrams representing a method for processing a viewers' orders consistent with this invention.

DETAILED DESCRIPTION

15 **Introduction**

Systems consistent with this invention allow viewers of an entertainment program to purchase products seen on these programs. The term "entertainment program," as used in the specification, refers to programs whose primary purpose is to

20 entertain, and not to sell products or services. Examples of "entertainment programs" include soap operas, sitcoms, dramas, sporting events, and movies. An entertainment program may be transmitted over any transmission media, such as wireless transmission, cable, or the Internet, or stored on a storage

25 media, such as video tape or laser disk. Further, an entertainment program may be displayed on any broadcast media,

6

such as television. The term "prop" refers to an item actually used on an entertainment program. The term "product" refers to merchandise similar to a prop. By similar it is meant that the product is visually and/or functionally indistinguishable from the prop. The product may or not be the same brand and/or make and model of the prop, but will not be the actual prop used in the show. This includes but is not limited to clothing, furniture, electronic goods, jewelry, cars, sporting goods and the like. The term product is not restricted to physical goods, but also includes services such as vacations or tickets to sporting events or shows. Additionally, videos of the episode would also be available for sale through this service.

In one such system, a central controller stores information about products available for sale. Before an entertainment program is broadcasted, viewers are shown a telephone number that they can call to find out whether certain products used in the program are available for sale. Calling this telephone number connects viewers to an operator who queries them regarding products they are interested in purchasing. The operator then compares the information provided by the viewers with information stored in the central controller's database to identify the particular products each viewer would ~~each~~ like to purchase. The database is organized to allow the operator to access information with only a minimal amount of information describing the product. The operator may also provide viewers with information about products other than those the viewers

asked about. If the viewers are interested in purchasing a product at this point, an order is placed for the product through the operator.

5 **System . Organization**

Fig. 1 illustrates a block diagram of a system 100 consistent with the present invention. System 100 includes a central controller 110, a viewer interface 120, a telephonic interactive voice response unit (IVRU) 130, a plurality of 10 operator terminals 140, a plurality of remote terminals 150, and a vendor facility 160. Although Fig. 1 shows three operator terminals 140 and three remote terminals 150, any number of these terminals may be connected to central controller 110. Similarly, one viewer interface 120 or multiple viewer 15 interfaces 120 can access each operator terminal 140 through a corresponding IVRU 130. Central controller 110 is linked to operator terminals 140, remote terminals 150, and vendor facility 160 through communication links, such as telephone lines or other data communication lines. IVRU 130 is linked to 20 viewer interface 120 by conventional telephone lines.

Central controller 110 receives product data and entertainment program data from remote terminals 150 and stores this data in a memory, as described below. Further, viewer interface 120 transmits a product request to a corresponding 25 IVRU 130 and operator terminal 140, each of which may be located in a call service center. The product request describes a

particular product of interest to the viewer, and an operator at operator terminal 140 processes the product request. Terminal 140 then transmits program description data corresponding to the request to central controller 110, which, after accessing the

5　product and program data stored in its memory, transmits product identification data back to operator terminal 140. This data is provided to viewer interface 120. If the viewer decides to purchase a product, controller 110 transmits product order data to vendor facility 160, which then routes the purchased product

10　to the viewer.

Central controller 110 preferably includes a digital data processing unit programmed to execute unique functions and operations in accordance with the principles of the invention. Such a digital data processing unit may include conventional

15　hardware, such as the IBM RS 6000. Operator terminals 140 and remote terminals 150 are digital data processing units, such as conventional personal computers configured to carry out the functions and operations described below.

Viewer interface 120 preferably comprises a conventional

20　touch-tone telephone, although any device capable of transmitting messages may be employed. In one embodiment viewer interface 120 comprises a conventional personal computer with a modem. The user connects to central controller 110 or operator terminal 140 via the Internet or other appropriate data

25　communication channels.

Fig. 2 is a block diagram showing one embodiment of central

controller 110. Central controller 110 includes certain standard hardware components, such as central processing unit (CPU) 210, random access memory (RAM) 220, read only memory (ROM) 230, clock 240, communication port 250, and data storage

5   260. CPU 210 is linked to each of the other listed elements. Communication port 250 interfaces central controller 110 with operator terminal 140, remote terminal 150, and vendor facility 160.

Central controller 110 executes one or more programs to

10   perform the functions and operations described below, and stores several databases of data relating to those functions and operations. These databases include program database 262, product database 263, vendor database 264, and order database 265. The programs (described in reference to Figs. 10 and 11)

15   are preferably stored in storage device 260 and executed by CPU 210. Transaction processor 261 manages the storage and retrieval from the databases in data storage device 260. Transaction processor 261 may comprise a separate conventional microprocessor, as shown in Fig. 2, or may comprise a portion of

20   the operating function of CPU 210.

Program database 262 provides a repository of information on entertainment programs on which products available for sale were used. By accessing the information stored in database 262, operator terminal 140 can identify the particular entertainment

25   program the viewer is calling about. Fig. 5 shows a possible organization of database 262 with the following fields for each

program: program record number 510; network 515; class 520; program title 525; episode date and time 530; scene data 535; episode status 540; episode title 545; episode plot 550; and special characters 555. A manager of the system assigns program

5   record number 510, which uniquely identifies a particular entertainment program. In one embodiment, program record number 510 could correspond to a program identifying number used in the VCR Plus system. Scene data field 535 includes information identifying a particular program scene in which a prop was used.

10   A sitcom, for example, might have a scene data record describing the activity of the characters in the kitchen if the prop being sold is a kitchen utensil. The remaining fields are self-explanatory. Episode plot field 550 includes information describing the plot of a particular episode of an entertainment

15   program. Special characters field 555 includes data representing, for example, guest characters or persons appearing in a particular episode. In alternative embodiments, program database 262 includes fewer or more fields of program information.

20   . Product database 263 provides a table of information on products indexed by a program record number 610, which may be the same as program record number 510. By accessing the information in product database 263, operator terminal 140 can identify the particular product that the viewer is interested in

25   purchasing. As shown in Fig. 6, database 263 preferably includes the following fields on each product offered for sale:

11

program record number 610; product type 615; program identifying data 620; product identifying data 625; product description 630; vendor 635; product cost 640; availability 645; and time code 650. Program and product identifying fields 620 and 625 include information that enables the identification of programs, and products offered for sale on the programs, respectively. Such information describes characteristics of the entertainment programs and associated products. Thus, program identifying data field 620 typically contains information similar to episode plot field 550. Time code field 650 includes a range of time code values corresponding to the time during which the respective product was displayed on the program. Product database 263 further includes information about the type of product for sale (product type 615), and retail information about the product description 630, vendor 635, product cost 640, and availability 645. In practice, product database 263 may include fewer or more fields for product information.

Vendor database 264 contains a table of information on the different vendors who supply the products. This table is preferably indexed by various vendor names. The information stored in vendor database 264 reflects information that central controller 110 can access about product vendors when placing orders. In other words, vendor database 264 provides information that may be either provided to viewer interface 120 or used while placing an order with a particular product vendor. Fig. 7 shows a possible organization for vendor information

containing the following fields on each registered vendor: vendor name 710; vendor identification number 715; products sold by the vendor 720; location of the vendor 725; and preferred methods of payment 730. The nature of these fields are self-explanatory. In alternative embodiments, vendor database 264 may include more or fewer fields.

Order database 265 includes a data file for each order placed by a viewer. Fig. 8 shows a possible organization of database 265 with the following fields for each viewer: viewer name 810; viewer address 815; order tracking number 820; order date 825; order amount 830; product ordered 835; product identification number 840; method of payment used 845; shipping data 850; and vendor used 855 (same as vendor field 710). Product identification number 840 is preferably assigned by vendor 855. The nature of the remaining fields are self-explanatory. Order database 265 may, however, include fewer or more fields for order information.

Fig. 3 shows the architecture of remote terminal 150 of system 100. Communication port 350 provides an interface for linking remote terminal 150 to central controller 110. As shown in Fig. 3, remote terminal 150 includes conventional computer components, including CPU 310, which is connected to video driver 320, video terminal 322, data entry unit 324, RAM 330, ROM 340, communication port 350, and data storage device 360. Video terminal 322 is connected to CPU 310 through video driver 320. Data entry unit 324, shown to include a keyboard and a

mouse, is connected to CPU 310 for entering data. CPU 310 executes program modules (described in reference to Fig. 9) preferably stored in storage device 360 to perform the functions and operations described below in connection with remote

5 terminal 150. Storage device 360 includes transaction processor 361, program database 362, and product database 363.

With respect to data entry operations, remote terminal 150 operates conventionally. A remote terminal operator enters into remote terminal 110 program data for program database 362 and

10 product data for product database 363. Under control of a program stored, for example, in storage device 360 or ROM 340, CPU 310 formats the data for storage in program database 362 and product database 363. Databases 362 and 363 are similar in organization to program database 262 of Fig. 5 and product

15 database 263 of Fig. 6, except that databases 362 and 363 contain information entered in the remote terminal 150.

Fig. 4 shows the architecture of operator terminal 140 according to the invention. Communication port 450 provides an interface for linking operator terminal 140 to central

20 controller 110 and IVRU 130. As shown in Fig. 4, operator terminal 140 includes CPU 410 which is connected to video driver 420, video terminal 422, data entry unit 424, RAM 430, ROM 440, and data storage device 460. These components may also be conventional. Video terminal 422 is connected to CPU 410

25 through video driver 420. Data entry unit 424, shown to include a keyboard and a mouse, is connected to CPU 410 for entering

data. CPU 410 executes modules stored in storage device 460 to perform functions and operations described below. Further, storage device 460 includes transaction processor 461 and order database 462. Database 462 comprises a subset of order database 265 of Fig. 8, and includes order information generated locally by operator terminal 140.

System Operation

Two different aspects of the operation of system 100 will be described. First, system 100 operates to create the databases for the sale of products. Second, system 100 operates using the databases to enable viewers to purchase products shown on an entertainment program.

Creating the Databases

Fig. 9 is a flowchart illustrating steps for entering program and product information into system 100. This data entry may be performed during or after the filming or taping of an entertainment program. As shown in Fig. 9, a remote terminal operator reviews the script of the entertainment program to determine which products will be offered for sale (step 910). According to one embodiment of the invention, the products sold are not the actual props used on the program, but substantially identical merchandise ordered from the particular product vendor.

In alternative embodiments, the actual props used on an

entertainment program are sold to viewers. The actual items used by celebrities often have a significantly higher market value than identical, but new, items. Therefore, the price for the actual prop of an entertainment program may be determined,

5   for example, by an auction among the viewers in which the prop is sold to the highest bidder during a fixed period of time. In an auction, each viewer telephones IVRU 130 to place his bid with an operator. Central controller 110 determines the winner of the auction by ranking the viewer bids.

10   The remote terminal operator enters program data for storage in local program database 362 of remote terminal 150 (step 920) and product data for storage in local product database 363 of remote terminal 150 (step 930). Examples of types of program data and product data are shown in Figs. 3 and

15   4. Remote terminal 150 transmits the data stored in program database 362 and product database 363 to central controller 110 (step 940). This may be done shortly after the remote terminal operator has entered the data or at a specified time interval (e.g., once a week).

20   . Once central controller 110 receives the transmitted data, controller 110 processes and indexes the data. Fig. 10 illustrates one way which controller 110 processes and indexes the data. As shown in Fig. 10, central controller 110 receives the data stored in program database 362 and product database 363

25   from remote terminal 150 (step 1010). CPU 210 processes the data and accesses the program and product databases 262 and 263

from data storage device 260 (step 1020). Next, controller 110 merges the program and product data received from remote terminal 150 into the respective program and product databases 262 and 263 (step 1030). Furthermore, controller 110 preferably merges program and product data from a plurality of remote terminals 150, each remote terminal 150 corresponding to a different entertainment program. Controller 110 then assigns a program record number to each new program data file received from each remote terminal 150 (step 1040). Once the transaction is completed, the product data is indexed by the program record number (step 1050).

Purchasing a Product

Figs. 11a-11b illustrate the process in which system 100 allows a viewer to purchase a product used in a broadcasted entertainment program. An entertainment program is broadcast to a number of viewers using conventional broadcast techniques (step 1105), such as over-the-air television broadcasts and cable transmission. The program may also be played from a storage media, such as a video cassette or an optical laser disc, upon which the program is recorded or stored. If the program is played from a storage media, the program may include a statement telling the viewer the date after which products shown on the program will no longer be available for purchase. When a viewer wishes to purchase a product displayed in the program, he calls the service using viewer interface 120 and is

connected to IVRU 130 (step 1110).

Various methods may be used to disseminate the telephone number of the service to the viewers. In one embodiment of the invention, the provider of the program adds a text overlay to
5   the entertainment program to provide the viewer with the telephone number of the IVRU 130. The telephone number may be displayed either before the start of the entertainment program, at the end of the program, during a commercial; or during the program in a corner or along a side of the screen. The
10   telephone number could also be made available in an entertainment program listing, such as TV Guide. The telephone number may be an 800 number, and the purchase price of a product is preferably charged to the viewer using either a credit card or personal check.

15   In a further embodiment of the invention, a 900 number is used as a communication and/or a payment interface for purchasing the desired product. In one such mode, the cost of the 900 number call is the cost of the requested product plus a connection charge. When a viewer/caller has confirmed an order
20   using a standard IVRU interface or by talking to a live operator, the cost of the product is billed to his phone number. In another mode, the 900 number charges a service fee for the call plus a connection charge. Payment for the product is made in a conventional manner.

25   A time code may also be superimposed near the corner of the screen. The time code may be a running clock which is

incremented as the program is broadcasted. In this embodiment, time code field 650 in Product Database 263 contains the values of the time code during which products were displayed on the program. By displaying the time code during the program

5   broadcast, the viewer can identify products by the time code value indicated when the viewer noticed the product was shown.

IVRU 130 preferably includes a voice prompt system which asks the viewer a series of questions to identify the particular program the viewer is calling about, and the viewer responds by

10   pressing the telephone keys (step 1115). For example, a viewer calling the service to order a suit an actor was wearing in a recent episode is queried by the IVRU 130 for the following information: network identification (CBS, NBC, TNT, FOX, ABC, ESPN, USA), time of day (AM, PM) and episode time (8:00pm), date

15   of episode (March 4) and name of show (Seinfeld). IVRU 130 transmits the responses from the viewer interface 120 to central controller 110 (step 1120). Central Controller 110 then transmits program description data to operator terminal 140 (step 1125). In response, operator terminal 140 receives

20   product identification data from controller 110 (step 1130). Viewer interface 120's call is then transferred to a live operator (step 1135) who, based upon the information received from controller 110, asks the viewer further questions (perhaps even repeating the same questions as necessary) to determine

25   which product the viewer would like to purchase (step 1140).

In an alternative embodiment, the viewer does not have to

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know the name of the program when describing the product to IVRU

130 or to the live operator. For example, the viewer could

state "I don't know the name of the program, but a tall guy

spilled coffee on something." The operator would then perform a

5   keyword search on databases 262 and 263, using the description

given by the viewer. In this way, the particular product may be

identified without additional information from the viewer.

Continuing on Fig. 11b, the operator then accesses

databases 262 and 263 to find data on the particular product

10   that the viewer would like to purchase (step 1145). Central

controller 110 then outputs the data on the particular product

to the operator (step 1150). The operator, in turn, then

provides product ordering information to viewer interface 120

and requests payment for the product (step 1155). Once the

15   operator receives the viewer's payment, for example, a credit or

debit card account number, the call is terminated (step 1160)

and the order is placed with vendor facility 160 (step 1165).

Vendor facility 160 then sends the purchased product to the

viewer (step 1170). Alternatively, the service could simply

20   forward the call to the vendor once the product has been

identified and not process the order at all.

In an alternative embodiment, the present invention is

practiced using an Internet interface to the service central

controller 110. In this embodiment, a viewer connects to a

25   service web page using conventional web browser software and

enters show and product identifying information in response to

programmed queries. A conventional search engine searches the appropriate databases, retrieves the episode and product information and displays a graphic presentation of the product. The viewer then visually identifies the product, and verifies

5   electronically that the selection is correct. If the product selection was incorrect, the viewer is given the option to modify his search terms and submit a new query. Once the correct product is identified, the viewer purchases the product using conventional payment methods, and it is shipped to him.

10   This embodiment has the advantage of not requiring human agents to process orders.

Conclusion

Systems and methods consistent with the invention

15   significantly increase the financial revenue of an entertainment program by selling props or products used on the program. This added revenue may lessen the entertainment program's dependency on advertising, allowing greater freedom in the artistic content of the programs. Vendors may also be willing to pay more to

20   have their products shown on an entertainment program due to the enhanced exposure associated with being on the program. To this end, systems consistent with the invention efficiently assemble program and product data into databases accessed by a central controller. Such data may be assembled, for example, for live

25   broadcast entertainment programs, prerecorded (video tape) entertainment programs, or digital (laser disc) entertainment

programs.

Systems and methods consistent with this invention also provide a simple, effective interface through which viewers may purchase products of an entertainment program without special

5   codes or product numbers to identify the products. The viewer simply describes the entertainment program that he was viewing, the particular scene in which the product was used, or merchandise information to identify the particular product. Thus, there is no need for the viewer to know particular

10   information about the product or prop itself. This provides added flexibility that will increase sales of those products by simplifying the ordering process. Accordingly, the present invention provides a system and method which efficiently sells products used on an entertainment program.

15   It will be apparent to those skilled in the art that various modifications and variations can be made to the system and method of the present invention without departing from the spirit or scope of the invention. The present invention covers the modifications and variations of this invention provided they

20   come within the scope of the appended claims and their equivalents.